

WHAT IS CLAIMED IS:

1. An oil separator for an engine, which is configured to separate a liquid from a gas, comprising:

a tubular oil chamber provided with its center axis extending substantially in a vertical direction, the oil chamber having closed upper and lower opening ends;

an air-fuel mixture transport pipe connected to a peripheral portion of the oil chamber so as to communicate with an inner space thereof, the air-fuel mixture transport pipe being configured to transport a liquid air-fuel mixture into the oil chamber;

a gas discharge pipe connected to an upper end portion of the oil chamber so as to communicate with the inner space thereof, to allow the gas to be discharged from the oil chamber through the gas discharge pipe; and

a liquid discharge pipe connected to a lower end portion of the oil chamber so as to communicate with the inner space thereof, to allow the liquid to be discharged from the oil chamber through the liquid discharge pipe, wherein

a connecting end portion of the gas discharge pipe opens downwardly within the oil chamber, and

a connecting end portion of the air-fuel mixture transport pipe is placed in the vicinity of an inner peripheral face of the oil chamber so as to open in a circumferential direction of the oil chamber.

2. The oil separator for an engine according to Claim 1, wherein the connecting end portion of the gas discharge pipe protrudes into the inner space of the oil chamber, and the air-fuel mixture transport pipe opens at a location higher than an opening end of the gas discharge pipe.

3. The oil separator for an engine according to Claim 1, further comprising:

a separating member provided in the inner space within the oil chamber to define a first space on an upper side and a second space on a lower side, wherein

the separating member is provided with a penetrating hole to allow the first space and the second space to communicate with each other, an upper end portion of a pipe member is connected to a lower face of the separating member so as to communicate with the penetrating hole, and a lower end portion of the pipe member opens downwardly,

the connecting end portion of the gas discharge pipe protrudes into the first space, and

the connecting end portion of the air-fuel mixture transport pipe communicates with the second space and is located higher than the lower end portion of the pipe member.

4. The oil separator for an engine according to Claim 3, wherein the penetrating hole has a diameter smaller than a diameter of the upper end portion of the pipe member.

5. The oil separator for an engine according to Claim 3, wherein the connecting end portion of the gas discharge pipe has a diameter smaller than a diameter of the lower end portion of the pipe member.

6. The oil separator for an engine according to Claim 1, wherein the oil chamber is configured such that opening ends of a tubular member are closed by closing members having an identical shape.

7. The oil separator for an engine according to Claim 6, wherein the tubular member is cylindrical.

8. The oil separator for an engine according to Claim 1, wherein the liquid air-fuel mixture is a blow-by gas of the engine.

9. The oil separator for an engine according to Claim 1, being equipped in the engine mounted in a jet-propulsion personal watercraft.

10. A personal watercraft comprising:

a body formed by a hull and a deck;

an engine body mounted in the body;

an air-intake system configured to draw air taken in from outside into the engine body; and

an oil separator configured to separate a blow-by gas discharged from the engine body into a gas and a liquid, the oil separator including:

a tubular oil chamber provided with its center axis extending substantially in a vertical direction, the oil chamber having closed upper and lower opening ends;

an air-fuel mixture transport pipe connected to a peripheral portion of the oil chamber so as to communicate with an inner space thereof, the air-fuel mixture transport pipe being configured to transport the blow-by gas from the engine body into the oil chamber;

a blow-by gas discharge pipe connected to an upper end portion of the oil chamber so as to communicate with the inner space thereof, to allow the blow-by gas to be discharged from the oil chamber through the blow-by gas discharge pipe; and

an oil discharge pipe connected to a lower end portion of the oil chamber so as to communicate with the inner space thereof, to allow the oil to be discharged from the oil chamber through the oil discharge pipe, wherein

a connecting end portion of the blow-by gas discharge pipe opens downwardly within the oil chamber, and a connecting end portion of the air-fuel mixture transport pipe is placed in the vicinity of an inner peripheral face of the oil

chamber so as to open in a circumferential direction of the oil chamber, wherein

at least part of the air-intake system is located on a first side of right and left sides of the body with respect to the engine body, the oil chamber of the oil separator is placed on a second side of the right and left sides with respect to the engine body, and the blow-by gas discharge pipe extends from the oil chamber to the part of the air-intake system located on the first side with respect to the engine body.